

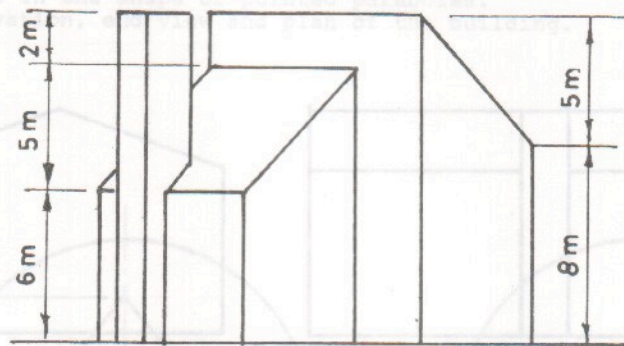
BUILDING APPLICATIONS

(200 marks)

INSTRUCTIONS

- (a) Answer four questions.
- (b) All questions carry equal marks.
- (c) Construction lines must be shown on all solutions.
- (d) Write the number of the question, distinctly, on the answer paper.
- (e) First or third angle projection may be used.
- (f) All measurements are given in metres or millimetres.

1. Fig. 1 shows the outline plan and elevation of a building. Draw a perspective view of the building when the position of the spectator is 19 m from the corner A, the picture plane touching the corner A and the horizon line 6 m above the ground line.



Scale 1 : 200

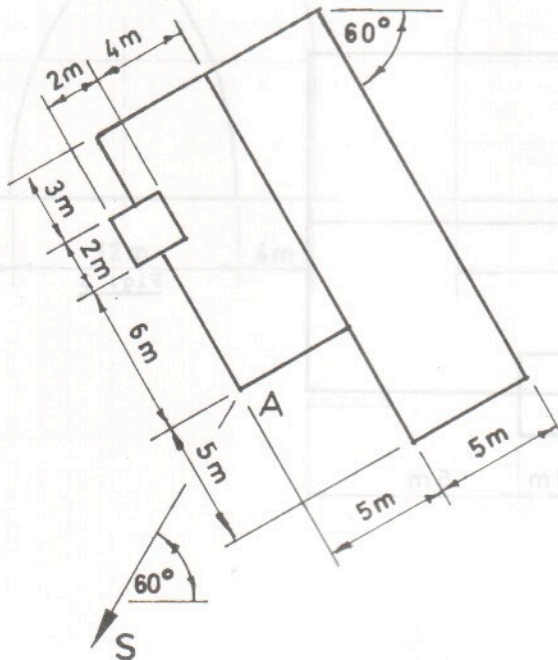


Fig. 1

2. Fig. 2 shows the outline plan of a lean-to roof. All the surfaces have a pitch of 30° .
- Draw the plan and elevation of the roof.
 - Develop the surface B of the roof.
 - Find the dihedral angle between the surfaces A and B and between the surfaces B and C.

Scale 1 : 100

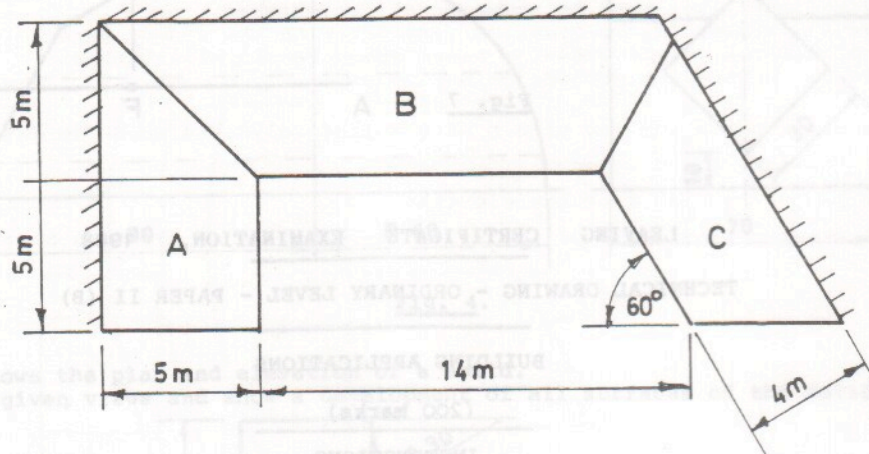


Fig. 2

3. Fig. 3 shows the elevation, plan and end view of a house. Draw the given views and determine the shadows cast in plan and elevation when the direction of the light is as shown.

Scale 1 : 100

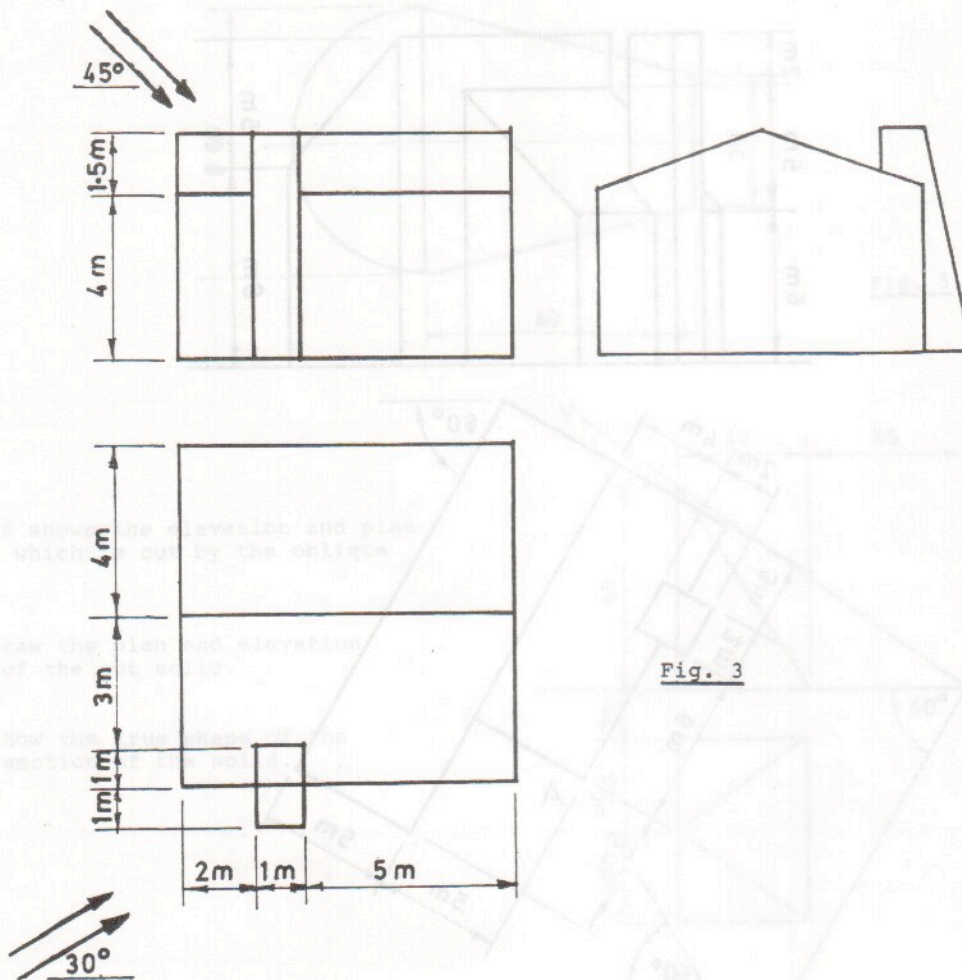
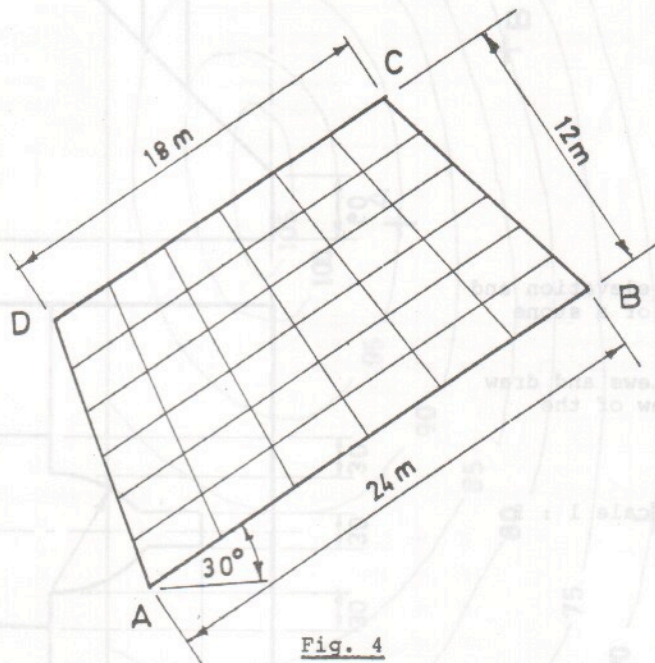


Fig. 3

4. Fig. 4 shows the outline plan of a hyperbolic paraboloid roof surface. The corners A, B, C and D are 1 m, 12 m, 4 m and 9 m above ground level, respectively.

(a) Draw the plan and elevation of the roof.

(b) Draw an elevation of the roof in which the true length of the edge AB will be seen.

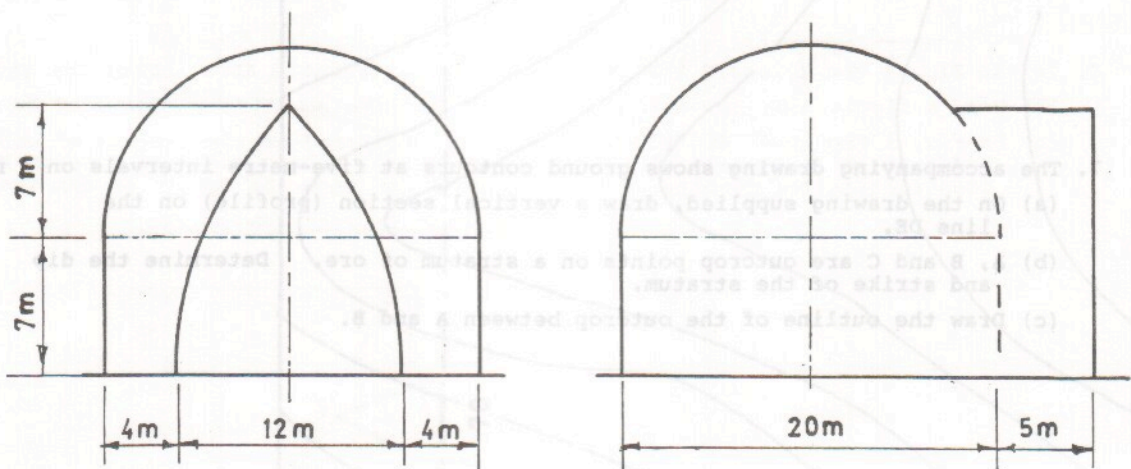


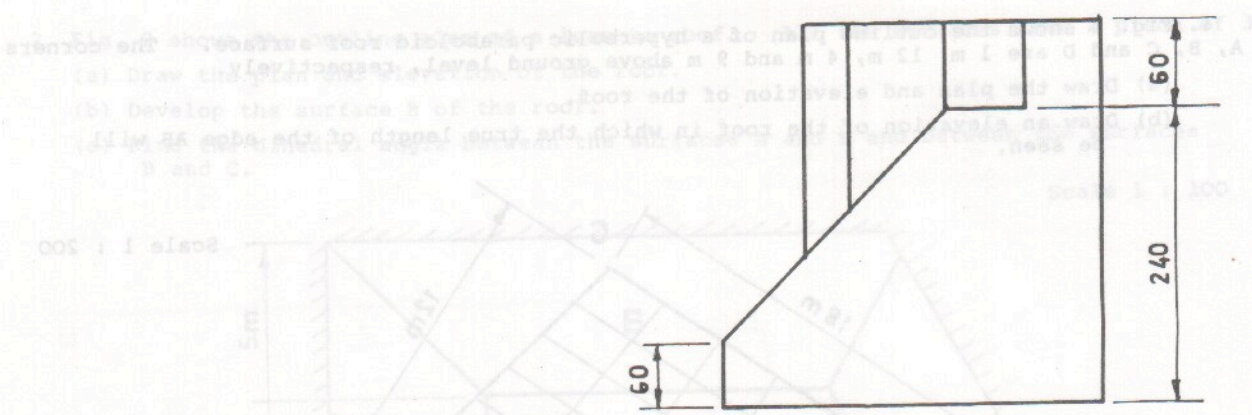
Scale 1 : 200

5. Fig. 5 shows the elevation and incomplete end view of a dome-shaped building having an entrance in the shape of pointed parabolas.

Draw the elevation, end view and plan of the building.

Scale 1 : 200





6. Fig. 6 shows the elevation and plan of portion of a stone sill.

Draw the given views and draw an isometric view of the sill.

Scale 1 : 5

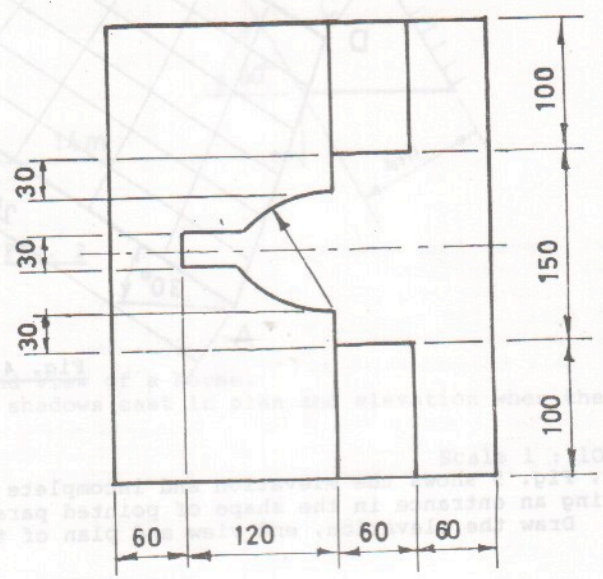
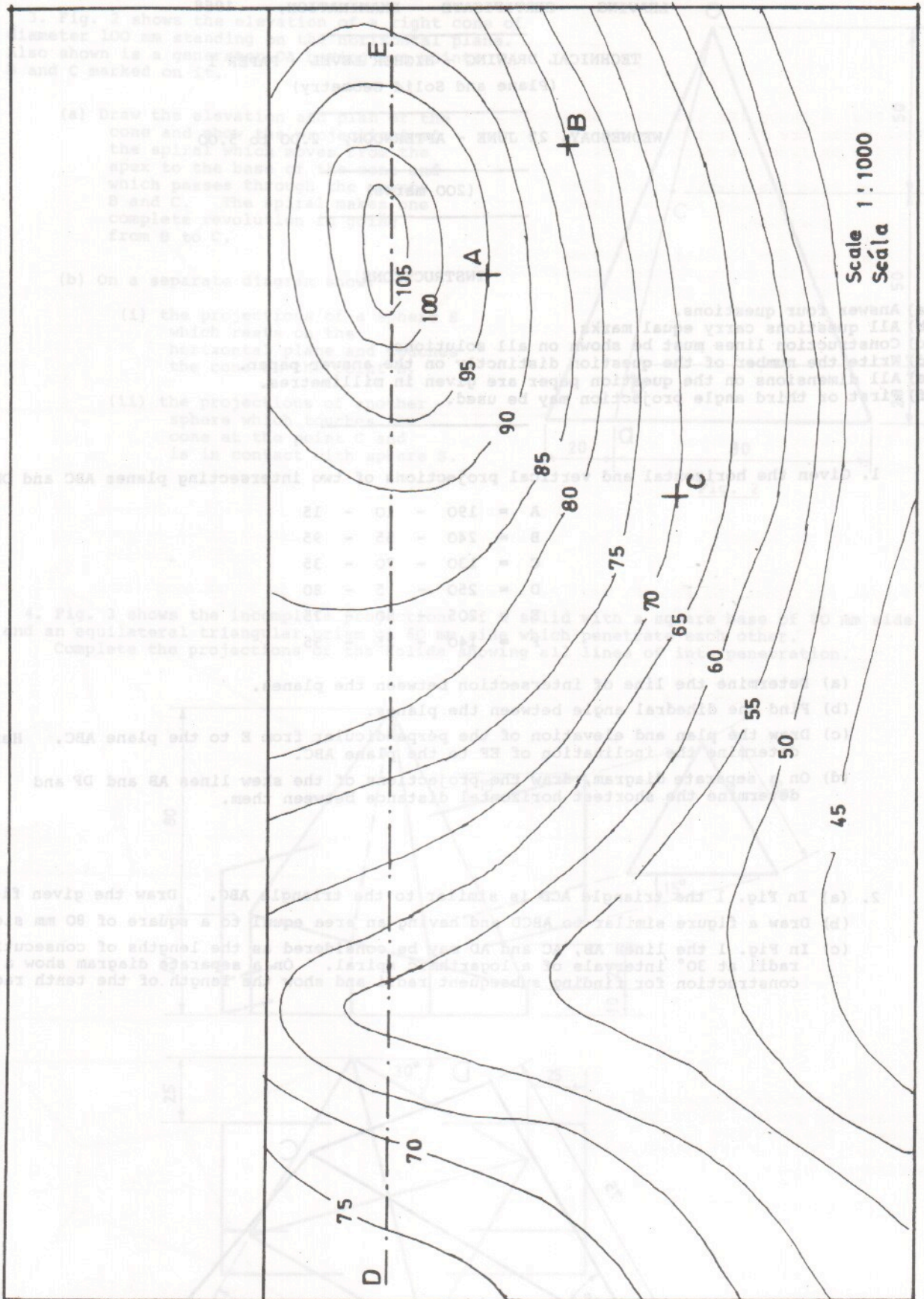


Fig. 6

7. The accompanying drawing shows ground contours at five-metre intervals on a map.
- On the drawing supplied, draw a vertical section (profile) on the line DE.
 - A, B and C are outcrop points on a stratum of ore. Determine the dip and strike of the stratum.
 - Draw the outline of the outcrop between A and B.



Scale 1:1000
 Škála